

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Gentex Corporation

Northeastern Pennsylvania Industrial Resource Center

Lean Manufacturing Implementation

Client Profile:

Gentex Corporation is a recognized world leader in the design and manufacture of advanced helmet systems for both ground and air troops. Gentex also develops integrated ensembles for soldiers and pilots, optical filtration materials, military ballistic and laser protective eyewear, electro-acoustic devices, oxygen masks, and chemical and biological protective fabrics. Gentex focuses on products that provide superior personal protection while enhancing human performance. The company headquarters is located in Carbondale, Pennsylvania, has been in business for over a hundred years, and currently employs over 400 people.

Situation:

Gentex is a forward thinking firm focusing on new technologies and growth. To keep up with the demands of its clients, the company needed assistance in its efforts to implement lean enterprise strategic solutions. Gentex turned to the Northeastern Pennsylvania Industrial Resource Center, Inc. (NEPIRC), a NIST MEP network affiliate, for help with its lean enterprise efforts.

Solution:

NEPIRC began by training the entire workforce of 400 people in the principles of lean manufacturing. Management and Implementation Teams were established and trained. Strategic activities were identified during value stream management projects for the major business units. Opportunities were identified for the administrative as well as the manufacturing value streams. Workplace organization and standardization training and projects were carried out involving the entire workforce. Monthly kaizen events were carried out in the two business units focusing on the lean implementation plan targets. Assembly cells were developed and implemented using the direct participation of the front line workers. Fabrication cells were designed to meet the growing demand for light weight helmets by the US Army and Marine Corps. Additional cycle time reductions were gained by reducing changeover time and improving material flow. Warehouse facilities were reviewed and new layouts were implemented. Personnel from the various business units gained greater understanding by participating in cross functional teams during all activities.

Results:

- * Reduced manufacturing cycle time.
- * Implemented more efficient manufacturing practices.
- * Improved fabrication and assembly processes.
- * Improved warehousing.
- * Reduced cost of fabrication and assembly.
- * Trained all employees in philosophy and implementation techniques behind new practices.

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* Initiated cultural change.

Testimonial:

"NEPIRC has been instrumental in the success of our training and implementation efforts. Training our workforce in the principles of Lean Manufacturing helped each employee understand the part they play in the success of our organization as well as giving them the opportunity to contribute to that success. NEPIRC's patience and expertise during our learning process helped ease the pain of change and lead us down the road of continuous improvement."

Dorina Mangan, Training and Organizational Development Manager